

Appl. No.: 10/516,987  
Response dated June 13, 2006  
Reply to Office action of February 14, 2006

REMARKS

Claims 10-24 are pending in the present application. Claims 10-21 are rejected. Claims 22-24 are objected to as being dependent upon a rejected base claim, but which would be allowable if rewritten in independent form, including all limitations of the base claim and any intervening claims. Applicants are very appreciative of the identification of allowable subject matter by the Examiner. For the following reasons, it is respectfully submitted that all of the claims of the present application are patentable over the prior art.

Prior Art Rejections

Claims 10-12, 17-18, and 21 were rejected under 35 USC 102(e) as being anticipated by US Pat. No. 6,184,009 ("Cain"). Claims 10-20 were rejected under 35 USC 102(a) as being anticipated by US Pat. No. 6,316,645 ("Sih"). According to the Examiner, Cain and Sih teach the preparation of conjugated linoleic acids ("CLA") wherein a conjugated linoleic acid ester is hydrolyzed in the presence of an enzyme, including the temperatures and enzymes used in the claimed invention.

The rejections are respectfully traversed.

The claims of the present invention call for a process of producing CLA by subjecting a conjugated linoleic acid lower alkyl ester to hydrolysis in the presence of an enzyme to form a hydrolyzate of CLA and a lower alkanol, wherein at least a portion of the lower alkanol is continuously removed.

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At page 2, lines 11-18 of the specification, it states that:

"It has surprisingly been found that enzymatic hydrolysis with continuous removal of alcohol leads to fatty acids that are free from unwanted secondary products... ."

Neither Cain nor Sih disclose or teach the novel process of the present invention wherein CLA alkyl esters are hydrolyzed in the presence of enzymes, wherein at least a portion of the lower alkanol is continuously removed.

For instance, Cain discloses that CLA alkyl esters were hydrolyzed in the presence of a lipase dissolved in distilled water. The mixture was extracted with a 1:1 solution of dichloromethane and petroleum ether, which was subsequently removed by evaporation. See Examples 18 and 19.

Sih discloses treating the CLA methyl ester reaction products of Example 1 (in which crude starting materials were obtained after treatment with a superstrong base) in acetone with a lipase. After acidification of the mixture with HCl, the aqueous layer was extracted with ether and the combined organic extracts were washed with a saturated NaCl solution. See Example 2 of Sih.

Nowhere, in either Cain or Sih, is there disclosed or taught a process of subjecting CLA lower alkyl ester to hydrolysis in the presence of enzyme, wherein at least a portion of the lower alkanol is continuously removed, as called for by claim 10 and the claims dependent thereon.

Claims 10-24 are therefore novel and unobvious over the prior art. The Examiner is kindly requested to reconsider and withdraw the rejections.

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A Notice of Allowance of all of the claims is respectfully solicited. If there are any remaining issues, the Examiner is kindly invited to contact the undersigned.

Respectfully submitted,

  
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